

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 27 FEB 2006

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Applicant's or agent's file reference 63146A	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/US2004/040035	International filing date (day/month/year) 30.11.2004	Priority date (day/month/year) 03.12.2003	
International Patent Classification (IPC) or national classification and IPC B65H54/02			
Applicant DOW GLOBAL TECHNOLOGIES INC. et al.			
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 6 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 1 sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).			
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the opinion <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input checked="" type="checkbox"/> Box No. VII Certain defects in the international application <input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application			
Date of submission of the demand 11.07.2005		Date of completion of this report 24.02.2006	
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Kising, A Telephone No. +49 89 2399-2174	



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/US2004/040035

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

1-7 as originally filed

Claims, Numbers

12-17 as originally filed

1-11 received on 13.07.2005 with letter of 11.07.2005

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/US2004/040035

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	4-8
	No: Claims	1-3,9-11
Inventive step (IS)	Yes: Claims	
	No: Claims	1-17
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item VIII

Certain observations on the international application

1. The term "elastic" fiber used in claim 1 is vague and unclear and leaves the reader in doubt as to the meaning of the technical features to which it refers, thereby rendering the definition of the subject-matter of said claims unclear, Article 6 PCT.
Claim 1 does neither define the elasticity nor the material used. Therefore each kind of an elastic fiber having a certain elasticity falls under the scope of the claim.
2. The value of the cross-section (width relative to thickness) of the elastic fiber defined in claim 1 and that defined in independent claim 10 or claim 11 differs from each other, so that it is not clear which value is considered to be essential for the invention (see the guidelines PCT/GL/3, 4.4). In addition, in claims 10 and 11 the kind of said elastic fibers is not given, so that any kind of elastic fiber is covered.
3. Claim 16 is directed to a fabric comprising a fiber made by a process of claim 11 without indicating the essential product features. Therefore, this claim does not meet the requirements of Art. 6 PCT.

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

- D1: US-A-3 605 818 (ADOLPH J. BALCHAN) 20 September 1971 (1971-09-20)
- D2: WO 03/078705 A (DOW GLOBAL TECHNOLOGIES INC; PATEL, RAJEN, M; REID, RONA, L; BATISTINI) 25 September 2003 (2003-09-25)
- D3: US 2003/108740 A1 (KOYANAGI TADASHI ET AL) 12 June 2003 (2003-06-12)
- D4: PATENT ABSTRACTS OF JAPAN vol. 1995, no. 11, 26 December 1995 (1995-12-26) & JP 07 197318 A (ASAHI CHEM IND CO LTD), 1 August 1995 (1995-08-01)

2. Insofar the present text can be understood, the subject-matter of claims 1-3,9-11 is not new (Art. 33(2) PCT).

Claim 1:

Document D1, which is considered to represent the most relevant state of the art, discloses (see page 2, lines 3 to 8, figures 1-3, col. 4, line 46 to 49, col. 7, line 14 to 36 and claim 5) a process for winding an elastic yarn (nylon) onto a core 30 for forming a package, the improvement comprising : forming the elastic fiber (nylon) into a shape having a fiber cross section such that the width of the fiber is at least 1.5 times the thickness of the fiber, prior to winding onto the core (see col. 7, line 14 to 36) prior to winding onto the core.

Since also the yarn of D1 (made of nylon) comprises a certain elasticity, it is considered to be novelty destroying for claim 1. As long as claim 1 does not specify the kind of material used and the level of elasticity the subject of claim 1 is not considered to be new over D1.

(Even it were considered to be new over D1 then a skilled person would definitely not consider the subject-matter of claim 1 to be inventive over D1, since the use of a certain cross section of an elastic yarn is considered to be a normal option.)

Claims 2,3,9 :

The features of dependent claims 2,3 and 9 and the corresponding features of product claim 10 are also clearly derivable from the afore-mentioned text passages.

Claims 10,11:

For independent claim 10 principally the same comment applies as for claim 1.

With regard to independent claim 11 document D1 is also considered to be novelty destroying, since it is obvious that said yarn with said cross shape of D1 has to be

produced by a die as defined claim 11.

A further novelty destroying document is D3 (see paragraphs 4,12,19,94,114,115,149,153 and 155) disclosing all the features of the claims 1-3,9 and 10,11. Due to the fact that neither the kind of elasticity nor the kind of material is defined in claims 11 and 10 D3 discloses all the features of the afore-mentioned claims.

The attention of the applicant is drawn to the fact that a definition of the elasticity in the description of the application is not considered to be limiting for the scope of a claim.

3. The subject-matter of dependent claims 4 to 8 and 11-17 does not meet the requirements of Art. 33(3) PCT.

Claims 4-8,12-17:

Dependent Claims 4-8,12-17 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, involve an inventive step (Art. 33(3)PCT), since the features defined therein are known from document D1 in combination with D1 (see whole document) concerning claims 4 to 6 or are merely possibilities from which the skilled man would select, in accordance with circumstances, without the exercise of inventive skill in order to solve the problem posed.

Therefore, these claims do not meet the requirements of Art. 33(3) PCT.

Re Item VII

Certain defects in the international application

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 to D3 is not mentioned in the description, nor are these document identified therein.

WHAT IS CLAIMED IS:

- 1) A process for winding an elastic fiber onto a core for forming a package and/or warp beam for use in knitting or weaving operations comprising: forming the elastic fiber into a shape having a fiber cross section such that the width of the fiber is at least 1.5 times the thickness of the fiber, prior to winding onto the core.
- 2) The process of Claim 1 wherein the width of the cross-sectional area is at least 3 times the thickness of the fiber.
- 3) The process of Claim 1 wherein the width of the cross-sectional area is at least 5 times the thickness of the fiber.
- 4) The process of Claim 1 wherein the elastic fiber is an olefin polymer.
- 5) The process of Claim 1 wherein the elastic fiber is a linear ethylene-alpha olefin interpolymer.
- 6) The process of Claim 1 wherein the elastic fiber is a substantially linear ethylene-alpha olefin interpolymer which has been substantially crosslinked.
- 7) The process of Claim 1 wherein the fiber is formed using dies having an opening which has two generally perpendicular axes, wherein one axis is at least about 1.5 times longer than the other axis.
- 8) The process of Claim 1 wherein the fiber is formed using dies having an opening which has two generally perpendicular axes, wherein one axis is at least about 3 times longer than the other axis.
- 9) The process of Claim 1 wherein the fiber is formed from two or more individual filaments having a generally round cross-section but wherein the two or more filaments are coalesced into a fiber having a cross section such that the width of the fiber is at least 3 times the thickness of the fiber, such shape being determined prior to winding the elastic fiber onto the tube core.
- 10) An improved package for elastic fiber comprising: a length of elastic fiber wound around a core, wherein the elastic fiber has a cross sectional area such that the width of the fiber is at least 3 times the thickness of the fiber prior to winding the elastic fiber onto the tube core
- 11) A process for forming an elastic fiber wherein the fiber is formed using a die having one or more openings which have two generally perpendicular axes, wherein one axis is at least about 3 times longer than the other axis.